



**MACHINERY
INSPECTION BOOK**

Name of Vessel	
Official Number	Class
Date Completed	
Location	
Vessel Built in Compliance with SOLAS: 60 74 74/78 NA	
Inspection Type	
Inspection for Certification (COI)	Reinspection <input type="radio"/> Mid-Period <input type="radio"/> Other <input type="radio"/> First <input type="radio"/> Second <input type="radio"/> Third
	} Passenger vessels only
Inspectors	
1. _____	3. _____
2. _____	4. _____

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

This inspection book is intended to be used as a job aid by Coast Guard marine inspectors during machinery inspections of U.S. flagged vessels. The lists contained within this book are not intended to limit the inspection. Each marine inspector should determine the depth of inspection necessary. A checked box should be a running record of what has been inspected. It does not imply that the entire system has been inspected or that all or any items are in full compliance. This job aid does not constitute part of the official inspection record.

NOTE: Guidance on how to conduct machinery inspections of U.S. flagged vessels can be found in Marine Safety Manual (MSM) Volume II, Chapter 6: Inspection of Vessels for Certification. All MSM cites listed in this book refer to MSM Volume II unless otherwise indicated.

- Review MSIS records.
 - MIPIP
 - MICOI
- Obtain copies of forms to be issued.

- Issue letters/certificates to vessel.
- Complete MSIS entries.
 - MIAR
 - MSDS
 - MIDR
 - VFLD
 - VFID
- Initiate Report of Violation (ROV) if necessary.

VIN

Deficiency

MSIS
Code**Req't. Issued /
Date Completed**

Section 1: Inspection Items

Boilers:

- | | |
|--|---|
| <div style="margin-bottom: 10px;"> <input type="checkbox"/> Propulsion machinery </div> <ul style="list-style-type: none"> • Safety devices • Foundations • Guards • Controls <div> <input type="checkbox"/> Propulsion and auxiliary boilers </div> | <div style="margin-bottom: 10px;"> 46 CFR 58.05
 SOLAS 74/78 II-1/27 </div> <div> 46 CFR 52.01-2
 46 CFR 52.01-35
 SOLAS 74/78 II-1/32
 MSM Ch. 6.H
 46 CFR 52.15-5
 46 CFR 56.50-40 </div> |
| <ul style="list-style-type: none"> • Shells or drums • Headers • Superheater • Blow off piping and valves • Tubes or flues • Furnaces • Soot blowers • Economizers • Combustion chambers • Refractory • Casing and insulation • Uptakes • Air preheaters • Forced draft blowers • Foundations • Gauges • Water level indicators | 46 CFR 52.01-110 |

- ☐ Periodic test and inspection of boilers in accordance with 46 CFR Table 61.05-10

Boiler ID Number	Date Hydrostatically Tested	Date Mountings Opened	Date Mountings Removed and Studs Examined	Fireside	Waterside	External

Notes: _____

- ☐ **Installation** 33 CFR 159.57
MSM Vol. IV Ch. 3.K.1
- Operation
 - Ventilation
 - Wiring and piping
 - Maintenance
 - Placard posted 33 CFR 159.59
 - Safety
 - Accessibility to parts requiring routine servicing
 - Manufacturer's instructions available

Miscellaneous:

- ☐ **Liquefied petroleum gases for cooking and heating** 46 CFR 61.15-10
- Approved type
 - Cylinder
 - Test dates
 - Stowage
 - Safety relief device
 - Regulators
 - Piping and fittings
 - Location
- ☐ **Tank tops, bilges, cofferdams, and bilge wells**
- ☐ **Sea suction and overboard discharges** MSM Ch. 8.F
- ☐ **Nonmetallic expansion joints** 46 CFR 61.15-12
MSM Ch. 8.F.3
- External exam
 - 10-year service replacement
- ☐ **Means of escape** 46 CFR 32.01-1
46 CFR 72.10-5
46 CFR 92.10-5
- Accessibility
 - Absence of locks

Notes: _____

- ☐ **Safety valves** 46 CFR 52.01-120
MSM Vol. IV Ch. 3.I.2.c
- Relieving gear
 - Escape pipes 46 CFR 56.50-25
 - Drains

Boiler	Date Set and Sealed	Pressure Setting

- ☐ **Superheater safety valves** 46 CFR 52.01-120

Boiler	Date Set and Sealed	Pressure Setting

- ☐ **Automation** 46 CFR Part 62
SOLAS 74/78 II-1/46-54
MSM Vol. IV Ch. 3.L
NVIC 1-69
NVIC 7-73
NVIC 6-84
46 CFR 62.50
46 CFR 62.30-10
- Reduced manning
 - Yes
 - No
 - Approved test procedure
 - Satisfactory test
 - Reviewed logs/records
 - Interviewed personnel

Notes: _____

- ☐ Fixed fire extinguishing system (machinery spaces) (System servicing is recorded in Hull Inspection 840 Book.)
 - Piping / flexible loops
 - Heads
 - Alarms
 - Markings
- ☐ Fire main systems and stations (machinery spaces)
 - Required number and type, proper threads
 - Nozzles (combination, etc.)
 - Applicators
 - Spanners
 - Markings
- ☐ Pumps tested
 - Controls and gauges
 - Relief valves
 - Markings
- ☐ Paint locker

46 CFR 34.15
 46 CFR 34.17
 46 CFR 76.15
 46 CFR 76.17
 46 CFR 95.05-10
 SOLAS 74/78 II-2/11

46 CFR 34.10-10
 46 CFR 76.10-10
 46 CFR 95.10-10

46 CFR 34.10-5
 46 CFR 76.10-5
 46 CFR 95.10-5
 SOLAS 74/78 II-2/4

46 CFR 34.05-5
 46 CFR Table 76.05-1(a)
 46 CFR 95.05-10(c)
 SOLAS 74/78 II-2/18.7

Watertight Integrity:

- ☐ Watertight integrity of machinery spaces
 - Watertight doors
 - Alarms
 - Controls
 - Bulkheads (penetrations)
 - Markings

46 CFR 170.270
 MSM Ch. 6.L.5.e

Notes: _____

- ☐ Automatic auxiliary boilers
 - Controls and safety devices
 - Fuel systems
 - Alarms
 - Inspections / test
- ☐ Boiler repairs in accordance with 46 CFR Part 59
- ☐ Low pressure heating boilers
- ☐ Periodic test and inspection of low pressure heating boilers in accordance with 46 CFR Table 61.05-10

46 CFR 63.15-1
 46 CFR 63.20
 46 CFR 63.15-3
 46 CFR 63.15-7
 46 CFR 63.15-9

46 CFR 53.01

46 CFR 53.05

46 CFR 53.12

Boiler Number	Date Hydrostatically Tested	Fireside	Waterside	External

Notes: _____

- ☐ **Emergency generator tested** 46 CFR 112.25
46 CFR 112.50
SOLAS 74/78 II-1/42-44
- Starting system
 - Fuel system
 - Overspeed trip (> 110% < 115%)
 - Low oil pressure alarm / shutdown
 - High jacket water temperature alarm
 - Fixed firefighting system shutdown
- ☐ **Emergency batteries tested** 46 CFR 112.55
- Protection
 - Charger
 - Ventilation
- ☐ **Adequate emergency power and lighting** 46 CFR 112.43
MSM Ch. 6.N
- ☐ **Internal communications and control system**
- General alarms 46 CFR 113.25
 - Engine order telegraph 46 CFR 113.35
 - Failure alarms
 - Telephones 46 CFR 113.30
 - Voice tubes
 - Public address system 46 CFR 113.50
 - Pilothouse controls
 - Fire detection and alarm systems 46 CFR 113.10
 - Steering gear alarm and indicator 46 CFR 113.43
- ☐ **Lifeboat electrical installation** 46 CFR 111.95
MSM Ch. 6.L.5.d
- Winches and controls tested
 - Master switch opened
 - Limit switches opened
 - Emergency disconnect switch opened

Notes: _____

Pressure Vessels:

- ☐ **Pressure vessels hydrostatically tested or internally examined** 46 CFR 61.10
MSM Ch. 6.Q
MSM Vol. IV Ch. 3.I.7

Service	MAWP	Date Tested or Examined Internally	Relief Valve Tested
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>
			<input type="checkbox"/>

- ☐ **Relief valves springs set within range** 46 CFR 54.15-10(g)

Auxiliary Machinery:

- ☐ **Bilge and ballast systems** 46 CFR 56.50-50
46 CFR 56.50-55
46 CFR 56.50-57
- Pumps
 - Eductors
 - Emergency bilge pump
 - Manifold, valves, and piping
 - Remote controls (hydraulic, pneumatic, manual, electric)
 - Strainers
 - Sounding and vent piping
 - Markings and indicators
- ☐ **Compressed air system** 46 CFR 58.30
- Compressor
 - Controls and gauges
 - Relief valves

Notes: _____
